

June 30, 2021

BY ELECTRONIC MAIL

Luly E. Massaro, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, RI 02888

**RE: Docket 5099 – National Grid’s Meter Inventory Tracking and
Meter Purchase Forecast Enhancement Plan**

Dear Ms. Massaro:

On May 6, 2021, the Rhode Island Public Utilities Commission (“RIPUC”) issued its Order in Docket 5099, National Grid’s¹ FY2022 Gas ISR Plan. In its Order, the RIPUC directed the Company to collaborate with the Rhode Island Division of Public Utilities and Carriers (“Division”) to develop and implement a plan that would improve the Company’s tracking of its meter inventory and its purchasing strategies. The RIPUC also directed the Company to submit the plan to the RIPUC by June 30, 2021. RIPUC Order No. 24042 at p. 27. In compliance with this Order, the Company submits the enclosed meter inventory tracking and meter purchase forecast plan (“Plan”). This filing includes two attachments: Attachment 1 is a written description of the Company’s Meter Inventory Tracking and Meter Purchase Forecast Enhancement Plan; and Attachment 2 is a set of PowerPoint slides, which are referenced throughout Attachment 1. The PowerPoint slides contain a full process flow diagram describing the Company’s enhanced process for inventory tracking, examples of monthly inventory tracking reports, meter purchase process reports, and the results of the physical meter inventory count that was conducted on June 10, 2021.

The Company collaborated with the Division to develop the enclosed Plan, and the Division supports the Plan. The Company and the Division will continue collaborating on any additional reporting modifications, if either party deems that any changes are needed.

¹ The Narragansett Electric Company d/b/a National Grid (“National Grid” or “Company”).

Luly Massaro, Commission Clerk
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Thank you for your attention to this matter. If you have any questions, please contact me
at 781-907-2121.

Very truly yours,



Raquel J. Webster

Enclosures

cc: Docket 5099 Service List
Leo Wold, Esq.
Al Mancini, Division
John Bell, Division
Rod Walker, Division

Attachment 1

Meter Inventory Tracking and Meter Purchase Forecast Enhancement Plan

I. Summary

On May 6, 2021, the Rhode Island Public Utilities Commission (“RIPUC”) issued its Order in Docket 5099, National Grid’s FY2022 Gas ISR Plan. In its Order, the RIPUC directed the Company as follows: “The Narragansett Electric Company d/b/a National Grid (“National Grid” or “Company”) shall collaborate with the Division of Public Utilities and Carriers (“Division”) to develop and implement a plan that would improve the Company’s tracking of its meter inventory and its purchasing strategies and shall submit such plan to the Commission by June 30, 2021. RIPUC Order No. 24042 at p. 27. The Company submits this meter inventory tracking and meter purchase forecast plan (“Plan”) in response to this requirement.

National Grid collaborated with the Division to develop the Plan, which included a site visit on June 9, 2021 to the Company’s Meter Lab in Lincoln, RI. National Grid is pleased to report that the Division supports the Company’s plan.

The Company’s Plan consists of two components. The first component is an enhanced process to track meter inventory in the meter lab, in operating yards and crew trucks to ensure that the Company has a full and accurate count of the number of meters on a month-end basis throughout the year. Please note that the Company will conduct a manual count of the meter lab inventory each month until the Company has validated that the Maximo system (“system”) is accurately capturing inventory data. The Company conducted an initial yard and truck inventory count on June 10, 2021 to establish the baseline count. Going forward, the Company will estimate the yard and truck inventory count on a monthly basis and add that to the actual meter lab count. The second component is an updated meter forecast process, which uses actual inventory counts of new and refurbished meters in the meter lab, estimated meters in yards and trucks, and the forecast work plan for jobs requiring installation of meters for the remainder of the fiscal year and the upcoming fiscal year to refine the meter purchase forecast. National Grid is confident that it can improve its inventory tracking and meter purchase forecasting by using the enhanced process.

II. The Plan

1. Meter Inventory Tracking

National Grid has developed an enhanced process for inventory tracking. A full process flow diagram that describes this enhanced process is provided in Attachment 2, page 2. Initially, the Company will use a manual tracking process while simultaneously validating that its system is accurately tracking meter inventory. Once the Company has validated that its system is accurately capturing meter inventory data, National Grid will transition to system reporting for meter tracking.

Specifically, National Grid will track meter delivery, meter installation, and meter inventory levels on a month-end basis. Meter inventory will be tracked as follows:

- The Company conducted an initial physical count of All Meters in the meter Shop, CMS yards and trucks on June 10, 2021. Monthly reporting of inventory levels gathered from Asset Engineering, the Meter Lab, and Resource Planning on the first of every month.
- The information will be stored in excel workbooks. Please see Attachment 1, pages 3 to 5.
- The excel workbook will show
 - Number of Meters purchased;
 - Current Inventory in Meter Lab;
 - Number of Meters Rejected;
 - Number of Meters Refurbished;
 - Number of Meters Retired;
 - Number of Meters Shipped to Yard;
 - Number of Meters Installed for Growth; and
 - Number of Meters Changed.
- The Company will compile this information monthly. Monthly information will be reported quarterly in the Company's Quarterly ISR reports. Please see Attachment 1, page 6 for a copy of the summary report that will be included with the Quarterly ISR reports.

The Company will use the following assumptions for its enhanced Meter Inventory Tracking process:

- Meter lab Inventory consists of only meters that have passed the quality control (QC) process. Meters that have failed QC will not be included in the inventory count.
- The Company will continue the manual count process until it is confident that system data accurately reflects inventory levels.
- The summary report will show both manual and system counts until transition to system tracking.

2. Meter Purchase Forecast

National Grid has updated its process for forecasting meter purchases and will now incorporate actual information from its enhanced meter inventory tracking described above along with forecast work plan information. Please see Attachment 2, pages 7 to 9 for a sample of how the data will be used to forecast meter purchases. Specifically:

- National Grid will estimate the fiscal year end meter inventory using the data gathered in the inventory tracking system.
 - Please note that although the Company's enhanced tracking process will improve month over month, a full year of monthly inventory data is needed to make significant improvements in the meter purchase forecast included in the annual ISR plan proposal. The Company will use a hybrid approach for the FY23 ISR Plan meter purchase forecast, which will include actual month end inventory levels collected prior to the filing and forecast inventory levels for the remaining months. This information will be updated prior to the FY23 ISR hearings in the Spring of 2022.

- National Grid will then estimate the number of meters to be purchased for the next fiscal year using the following information:
 - Previous fiscal year ending inventory to validate data.
 - Current Inventory provided from Inventory summary.
 - Actual meter refurbishment rate. The historical refurbishment rate for changed meters will be reviewed and used to update the estimated refurbishment rate if necessary.
 - Forecast of meters needed for mandated, growth and miscellaneous meter changes.
 - A reasonable adjustment to ensure there is sufficient inventory of all meter types available, since the exact number of each type of meter needed for next fiscal year may vary from historical levels based on the specific type of meter needed at each location. The Company refers to this amount as the “buffer.” Having a reasonable buffer for each type and size of meter ensures that the Company has the right meter available to complete both mandated and growth work.
 - National Grid will complete the following documents to identify the desired number of meters to be purchased:
 - Inventory Summary, which will identify the refurbish rate and current Inventory in the meter lab, yards and trucks.
 - Fiscal Year-End Inventory Estimate using actual historic inventory levels captured through then enhanced inventory tracking process.
 - Meter purchase plan, refurbish rate, and planned meter changes for the remainder of the current fiscal year to identify the end of year inventory.
 - Forecast Meter Purchase Plan for upcoming fiscal year.
 - The end of the current fiscal year inventory will be used for the start of the upcoming fiscal year inventory
 - Forecasted refurbish rate, desired inventory buffer, and planned meter changes will be used to identify the number of meters to be purchased.
 - Once the documents are completed the Company will review to determine if any adjustments are needed to ensure there is sufficient inventory of all meter types available.

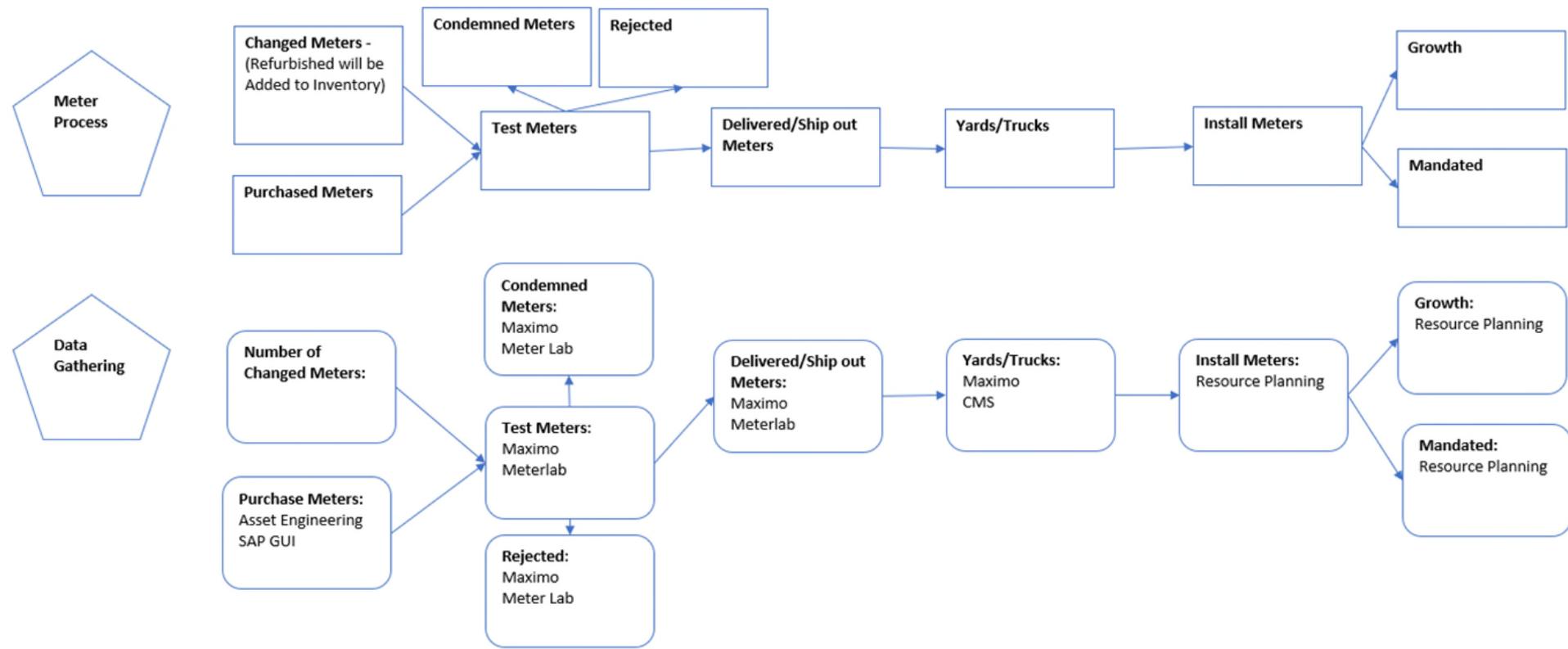


RI Gas Meter Inventory Enhancements

RIPUC Order No. 24042 at p. 27

Materials Submitted 6/30/2021

Meter Process Flow





Monthly Data Check

- The following template will be used to identify initial variances between the monthly manual count of meter lab inventory compared to the inventory listed within the Maximo system.

RI DATA									
Meter Type	Current Inventory		Comparison	Rejected		Comparison	Shipped Out		Comparison
	Physical Count	Maximo	Difference (+ or -)	Physical Count	Maximo	Difference (+ or -)	Physical Count	Maximo	Difference (+ or -)
250									
400-600									
Large Volume 800-1000									
8C, 15C, 3M									
5M, 7M, 11M									
16M, 23M									
38M, 56 M									
30M									
35M									
57M									
90M									
230M									
Total									
Meter Type	Refurbished		Comparison	Retired		Comparison			
	Physical Count	Maximo	Difference (+ or -)	Physical Count	Maximo	Difference (+ or -)			
250									
400-600									
Large Volume 800-1000									
8C, 15C, 3M									
5M, 7M, 11M									
16M, 23M									
38M, 56 M									
30M									
35M									
57M									
90M									
230M									
Total									



Monthly Summary

- National Grid will also take count of all meters entered and leaving the current inventory.

RI DATA											
Month	June										
	Asset engineering	Meter Lab/Physical Count				Meterlab/Maximo				Resource Planning	
Meter Type	Meters Purchased	Rejected	Refurbished	Retired	Shipped Out	Rejected	Refurbished	Retired	Shipped Out	Growth	Mandated
250											
400-600											
Large Volume 800-1000											
8C, 15C, 3M											
5M, 7M, 11M											
16M, 23M											
38M, 56 M											
30M											
35M											
57M											
90M											
230M											
Inflow		0									
OutFlow		0									
Refurbish Rate		0									



Monthly Summary

- Each Month National Grid will create a monthly inventory summary.

RI DATA						
Starting Date	June 10 th (Physical Count)					
Ending Date	June 30 th					
Meter Lab Starting Inventory			Meter Lab Ending Inventory			
Meter Type	Physical Count	Maximo	Meter Type	Physical Count	Maximo	
250			250			
400-600			400-600			
Large Volume 800-1000			Large Volume 800-1000			
8C, 15C, 3M			8C, 15C, 3M			
5M, 7M, 11M			5M, 7M, 11M			
16M, 23M			16M, 23M			
38M, 56 M			38M, 56 M			
30M			30M			
35M			35M			
57M			57M			
90M			90M			
230M			230M			
Total			Total			

Note: The June reporting period will be June 10, 2021 (date of physical inventory count) until June 30, 2021 (month end). Full month reporting periods (ie. July 1 – July 31, 2021) will be utilized for all future months.



Summary Report

(Monthly reports to be included in Company's Quarterly ISR Reports)

RI DATA			
Starting Date			
Ending Date			
Meter Lab Inventory			
Measure	Physical Count	Maximo	Comparison
Current Inventory Starting Date			
Current Inventory Ending Date			
Rejected			
Shipped out			
Refurbished			
Retired			
Asset engineering			
Meter Type	Meters Purchased	Growth	Resource Planning Mandated
Total			
Inflow		0	
OutFlow		0	
Refurbish Rate		0	
Inflow	= Meters Purchased + Refurbished		
OutFlow	= Rejected + Shipped Out		
Refurbish Rate	= Refurbished / (Retired + Refurbished)		



Inventory Summary

(Example framework, including June 10th actual initial physical inventory counts)

Initial Count (June 10 th Actuals)		Total Inventory			Meter Lab Inventory Flow		
Meter Lab	9,943	Initial Inventory	12,957		Meters Added	5,200	
Yards + Trucks	3,014	Mandated		9,000	Meters Moved out	11,000	
Total Inventory	12,957	Growth		1,700			
		Rejected		250	Refurbish Rate		
Green = Actual Data					18%		
Yellow = Example Data		Refurbished		200			
		Purchased		5,000			
Total Counts (Summation)		Ending inventory	7,207				
Purchased	5,000				Meter Lab Inventory		
Refurbished	200	Yard/Truck Inventory			Initial Inventory	9,943	
Growth	1,700	Initial Inventory	3,014		Shipped Out		11,000
Mandated	9,000	Mandated		9,000	Rejected		250
Condemned	900	Growth		1,700			
Rejected	250				Refurbished		200
Meter lab inventory	6,000	Shipped Out		11,000	Purchased		5,000
Shipped Out	11,000	Ending Inventory	3,314		Ending Inventory	3,893	

Note: Cells highlighted in yellow are representative and do not reflect actual volumes.



FY22 Year End Inventory Calculation Method

(Can be updated throughout the year)

RI	+	-	+	+	-	-		Refurbish Rate:	18%
FY	Current Inventory	Mandated	Refurbished Meters	Purchase	Growth	Miscellaneous	Ending inventory	Ideal Inventory Months	3
22	7,207	9,320	848	7,000	1,700	326	3709		
Current Inventory	7,207								
Mandated		9,320							
growth		1,700							
miscellaneous		326							
Refurbished		848							
Purchased		7,000							
Ending inventory	3,709								

Note: Numbers used are representative and do not reflect actual volumes



Meter Purchase Plan

RI	+			-	+		-	-	Refurbish Rate:	18%
FY	Starting Inventory	Difference	Ending inventory	Mandated	Refurbished Meters	Purchase	Growth	Miscellaneous	Ideal Inventory Months	3
23	3,709	(16,247)	5,837	18,640	3,389	22,084	3,400	1,305		
24	5,837	(14,119)	5,837	18,640	3,389	19,956	3,400	1,305		
25	5,837	(14,119)	5,837	18,640	3,389	19,956	3,400	1,305		
26	5,837	(14,119)	5,837	18,640	3,389	19,956	3,400	1,305		
FY23										
Starting Inventory	3,709			Meter Purchases						
				FY	RI					
Mandated		18,640		23	22,084					
growth		3,400		24	19,956					
miscellaneous		1,305		25	19,956					
				26	19,956					
Refurbished		3,389								
Purchased		22,084								
Ending inventory	5,837									

Note: Numbers used are representative and do not reflect actual volumes

Appendix



Meter Lab + CMS Physical Count Results

Performed June 10, 2021

RI DATA				
Date		June 10, 2021		
Initial Count				
Meter Lab		9,943		
Yards + Trucks		3,014		
Total Inventory		12957		
Meter Lab Inventory		Yards+Trucks		
Meter Type	Physical Count	Meter Type	Physical Count	
250	8,125	250	2,724	
400-600	1,073	400-600	189	
Large Volume 800-1000	545	Large Volume 800-1000	22	
8C, 15C, 3M	100	8C, 15C, 3M	39	
5M, 7M, 11M	73	5M, 7M, 11M	29	
16M, 23M	21	16M, 23M	11	
38M, 56 M	6	38M, 56 M		
30M		30M		
35M		35M		
57M		57M		
60M				
90M		90M		
230M		230M		
6" Turbo				
Total	9,943	Total	3,014	

Certificate of Service

I hereby certify that a copy of the cover letter and any materials accompanying this certificate was electronically transmitted to the individuals listed below.

The paper copies of this filing are being hand delivered to the Rhode Island Public Utilities Commission and to the Rhode Island Division of Public Utilities and Carriers.

Joanne M. Scanlon

June 30, 2021

Date

Docket No. 5099- National Grid's FY 2022 Gas Infrastructure, Safety and Reliability (ISR) Plan - Service List 4/1/2021

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